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## Banking Business Models of the Digital Future: The Case of Latvia

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**Abstract:**

*How the banking business model in Latvia changes? What are the main forces determining these changes? What group of banks in the retail banking sector has had more intensive changes during the last three to five years? Are banks feeling competition from the FinTech companies and realising a more flexible and focused policy or are they continuing to believe on traditional banks' domination?*

*This paper explores this process by analysing banking products and services in Latvia. How advancements in technology continue to transform the lives of banking customers? The study shows that digitalization guarantees the development of banks. Banks are looking at new avenues such as mobile application and mobile marketing to provide value-added services to customers and increase revenues by charging nominal fees for the services. Latvian banks are getting more flexible in customer services and banking products like crediting and financial resources transferring.*

*We divided Latvian commercial banks into two significant groups: banks more specialized in international customers servicing and banks more specialized in domestic customers servicing. Financial indexes have been compared in conformity to these two groups. The CIR, ROA, ROE estimates point out the profitability and efficiency of commercial banks. LIQUIDITY shows that banks in Latvia have an adequate stock of unencumbered high-quality liquid assets that can be converted easily and immediately into cash.*

*The profitability and efficiency indicators are more predictable and stable in banks servicing domestic customers. Banks servicing international customers specialize in focused retail, but banks servicing domestic customers provide a wider range of products and services. As a result, banks servicing domestic customers are more flexible.*

**Keywords:** banking business model, products and services, profitability and efficiency.

**JEL code:** G21, O16

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## **1. Introduction**

Every day the World becomes more and more digital. Digitalization is the future of all business industries. Banks have a significant role in our daily lives and the digitalization of the banking sector is no exception.

The Latvian banking system consists of many commercial banks: according to LCA date on December 31, 2016 the number of commercial banks was 23. Commercial banks in Latvia can be divided into two parts: banks more specialized in international customers servicing (BI) and banks more specialized in domestic customers servicing (BD). Both sectors are large enough. In 2015 the number of capital and reserves in the BD sector was 1.9 billion and in the BI sector- 1.0 billion (The Association of Latvian Commercial Banks, 2017). In 2015 the number of active customers in the BD sector was 2.02 million and in the BI sector- 0.03 million (The Association of Latvian Commercial Banks, 2017). BD provide a wider range of products and services, but BI specialize in focused retail.

The aim of this study is to compare the two groups of retail banking and fix the banking business model in Latvia's digital future.

This study will examine bank performance to isolate the factors that influence changes of banking business models in BI and BD in Latvia. What group of banks in the retail banking sector has had more intensive changes during the last three to five years?

Research starts with literature review and hypotheses promotion. The hypotheses show three directions of the research: the main force in the banking environment, FinTech influence on the banks development and the need for banks to digitalize.

Next step is to analyze banking products and services in Latvia such as: settlement and cash services, account management, savings and investments, loans. What products and services do customers prefer to use? How advancements in technology continue to transform the banking products and lives of banking customers?

Further the financial indexes would be compared. The CIR, ROA, ROE estimates point out the profitability and efficiency of commercial banks. LIQUIDITY shows the degree to which an asset can be quickly bought or sold in the market.

Finally, the future banking business model of Latvian banks has been shaped.

## **2. Research results and discussion**

### **2.1 Literature review and hypotheses**

The banking industry is going through digital changes. New devices, technologies and FinTech are changing the banking business models.

Digital transformation is a huge opportunity for the financial sector. Digital transformation will help financial companies in customer acquisition, retention and revenue generation. Increasing competition and decreasing customer loyalty has made customer relationship management very useful for banks. Banks need to earn the highest level of trust to retain existing customers, acquire new ones, create genuine loyalty and maximise customer lifetime value. Digital technologies will help banks to provide knowledge of customers and target them with customised products and communications remotely all day (Ernst & Young, 2015). The importance of being easy, credible and secure to keep existing customers and acquire new ones is fundamental to banks (Thalassinos *et al.*, 2013; Thalassinos, 2008). Reducing the gap between the customer expectations and delivered service will enhance the customer loyalty and bank's profitability (Thalassinos *et al.*, 2015). It is cheaper to keep loyal customers than to acquire new ones (Björk, 2015). Customer migrated to digital channels. Mobile channels are far more likely to delight and less likely to annoy than the branch or call centre experiences. It is leading to increase loyalty with higher customer retention, repeat purchases and referrals. Customers increasingly expect to follow up with bank staff through digital chat, video or other real-time options and banks actively develop them (Bain & Company, 2015; Vlasov, 2017; Hes and Jilkova, 2016).

*Hypothesis 1: Customers are the most important force in the banking environment. Banks must thoroughly research their own customers.*

FinTech received a lot of attention and a lot of funds for the last five years and they are on the rise now. FinTech have entered the market and they are competing with banks. Sabine Lautenschläger, Member of the Executive Board of the ECB and Vice-Chair of the Supervisory Board of the ECB, considers that FinTech will change banks and could be three scenarios: banks might team up with FinTech, FinTech might break up the value chain of banking and FinTech could be swallowed up by big Tech companies and deeply transform the banking business (Lautenschläger, 2017). FinTech can transform banks positively and negatively. Digital challengers and FinTech giants present a threat for banks and will not go away soon, but at the same time, a wave of innovation in the financial sector offers many opportunities for banks, who able to move quickly (Finnegan, 2016; Vovchenko *et al.*, 2017; Xanthopoulos, 2014; Suryanto, 2016). The banks will gain from many new innovations. Square, for instance, is a system that makes it easier for small businesses to take card payments; it will boost banks' transaction volumes. The FinTech revolution will reshape finance and improve it (Financial services, 2015).

*Hypothesis 2: FinTech effect the banks' development.*

After crisis authorities have tried to make banks more industrial by imposing waves of rules and banks have developed in more deliberate shape as a result. Now the pressure is coming from the consumer. In the digital age, banks are looking for outdates. Facing pressure from consumers and regulators, banks must embrace digitalization. The smartphone is the main choice for the banks' customers of today. New banks are operating digital-only models and giving to their customers a full range of banking services in smartphone (Barnes, 2015). Customers prefer to access their bank using mobile and online channels and pay for purchases with cards rather than in cash. Digital experience let users to see all their balances anytime and anywhere. App in smartphone can offer advice on wealth building, spending habits and money saving tips (Ogden, 2017). Enabled by technology, customers expect the easy control and the variation of their money whenever they want. Customers' needs would be satisfied. Customers move at different speeds and make different decisions, every customer is a digital customer now— someone more and someone less, from the traditional customer to the digital-savvy one (Accenture, 2015).

*Hypotheses 3: To satisfy customers' needs, banks should digitalize.*

## 2.2 Types of payments systems and instruments in Latvia

Payments systems were developed out of a need to facilitate the exchange of goods or services for another. The most common payment methods in Latvia are: payment cards, cash payments, bank transfers and mobile payments.

All payments systems and instruments can be divided into two big parts: traditional and electronic, as shown in Table 1.

**Table 1.** *The traditional and electronic payment systems and instruments (Cll-Deloitte, 2015)*

The traditional payment systems and instruments	The electronic payment systems
Payment cards	Mobile banking
Customer service centres	POS
Call Centre	Internet
ATM	Online banking
	Phone banking
	APP

*Source: authors' construction based on the Deloitte data*

With the FinTech development in the world, electronic payment instruments are growing and traditional cash payments have decreased in Latvia. Payment cards issue 11 BD and 7 BI in Latvia. From 2012 Latvian commercial banks had issued 2.32 billion payment cards. BD are leaders in the number of issued cards, but since 2012 till 2015 the share of issued cards has decreased from 98.1% till 97.8%. In 2015 BD kept 2.27 billion

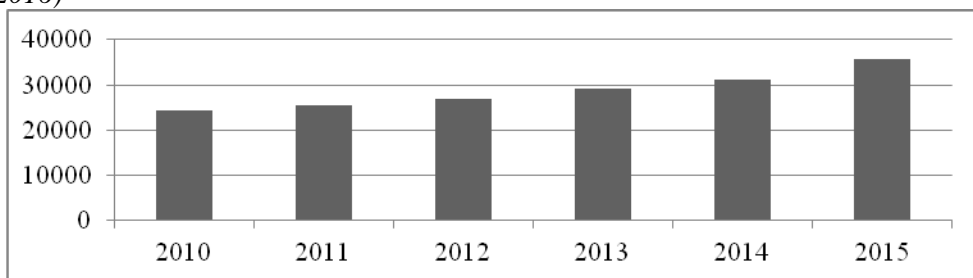
payment cards, but BI only had 50 thousand payment cards (The Association of Latvian Commercial Banks, 2017).

The banks customers' habits are changing and every year the banks customers use payment cards more and more. According to the Latvian Commercial Banks Association (LCA) data payment card transactions has grown by 21.2%, reaching 246.6 billion in 2014. In 2016 the number of payment card transactions reached 296.6 billion. The trend is to choose non-cash payments. The rapid growth was observed in the use of payment cards for purchases. In 2016 year the number of payment card purchases increased by 8.8% to 4,554 billion euro. Payment cards play an important role in today's marketplace as a ubiquitously accepted payment instrument (The Association of Latvian Commercial Banks, 2017).

Banks in Latvia have created many variants on the basic value proposition of convenience, acceptance, and safety. To increase the number of payment cards, Latvian banks offer to their customers' additional Loyalty programs such as: travel insurance, cash back, discounts in the shops, point accumulation system, free usage period and presents for achieved turnover. Also, Latvian banks modernize payment cards. In 2016 BD started to produce payment cards with contactless function and customers can pay for goods and services without entering their PIN.

The increase of the number of payment card purchases has necessitated a rapid increase of the number of POS terminals, as shown in Figure 1.

**Figure 1.** The number of POS terminal from 2010 till 2015 in Latvia (LCA data, 2016)



*Source:* authors' calculations based on the LCA data

BD are technologically developing in Latvia and started to set POS terminal with contactless technology in 2016.

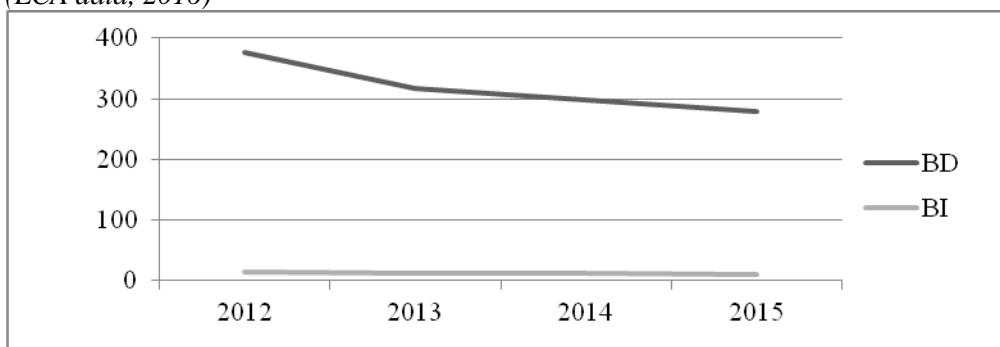
Secured cards are a particular type of market innovation. While there are dozens of product comparison websites and sites instructing consumers on the basics of secured cards- including how they differ from checking account-linked debit, prepaid debit, and unsecured cards- secured cards have received little attention in the trade press or academic publications. However, as banks, regulatory agencies, and

consumer advocacy groups continue to focus on efforts to bring marginalized consumers into mainstream banking, interest in secured cards is likely to grow (Santucci, 2016).

Since 2006 more and more credit institutions in Latvia are implementing the highest security system to safe shopping on the Internet. Banks are using Internet 3D secure protection system developed by international companies VISA and MasterCard. American Express cards were added to the additional security technology in 2015 in Latvia. Confirming purchases on the Internet, in addition to inputting data from the payment card, the buyer also must enter login and password from online banking.

With the increase of purchases of payment cards and the expansion of POS terminal, the number of cash transactions has decreased in Latvian banks. A greater proportion of cash operations are provided by BD. With the reduction of cash transactions, the number of customer service centers in the BD sector has decreased, as shown in Figure 2.

**Figure 2.** The number of customer service centers in Latvia from 2012 till 2015 (LCA data, 2016)



*Source:* authors' calculations based on the LCA data

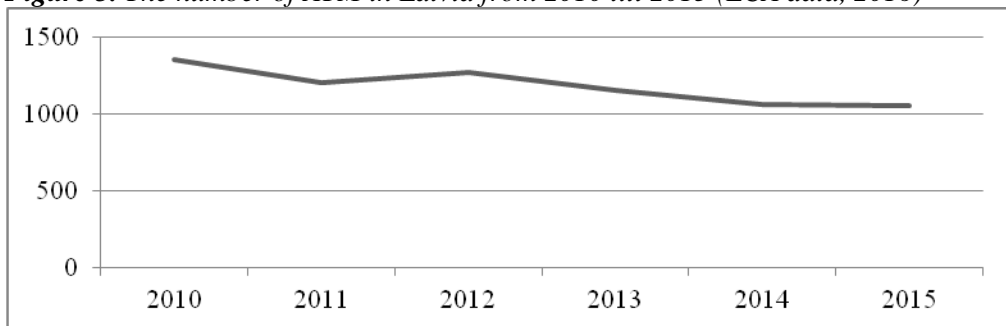
The remaining customer service centers are actively modernizing. For the last three years several banks have gradually refused to work with cash and are offering to their customers only non-cash transactions or advisory services. The branches' employees stopped using WEB kiosk and begun to use tablets to learn new technologies in online banking and mobile banking.

FinTech disrupted the financial industry and branches are destined to become the alternative channel for customers to conduct their banking, integrating electronic payment systems and instruments such as: online banking, mobile banking and App. Personalized service provided in a different manner, leveraging digital technology to achieve a better buying experience. For the last four years all banks carried out online banking modernization. Latvian banks expanded the range of services in online banking and built strong cybersecurity.

BI sectors provide a professional banker with an opportunity to work more closely with customers. BI customers generally receive a highly personalized service such as: private manager availability around the clock and phone banking. BD had more intensive changes and became closer to their customers. Last year BD call centers introduced a new service- call back to customer. This year they open a new communication line to their customers, such as Skype, WhatsApp and Norvik Chat.

The popularity of using mobile banking and phone applications are growing every year in all banking sectors. In 2016 Citadele developed and set up a new mobile application with integrated exclusive code calculator function. The last traditional payment system is ATMs. The number of cash transactions and POS increased, therefore the number of ATM decreased, as shown in Figure 3.

**Figure 3.** *The number of ATM in Latvia from 2010 till 2015 (LCA data, 2016)*



**Source:** *authors' calculations based on the LCA data*

The cash payoff services from ATM in Latvia provided only BD sector. The new modern technology services gradually replace the ATM services.

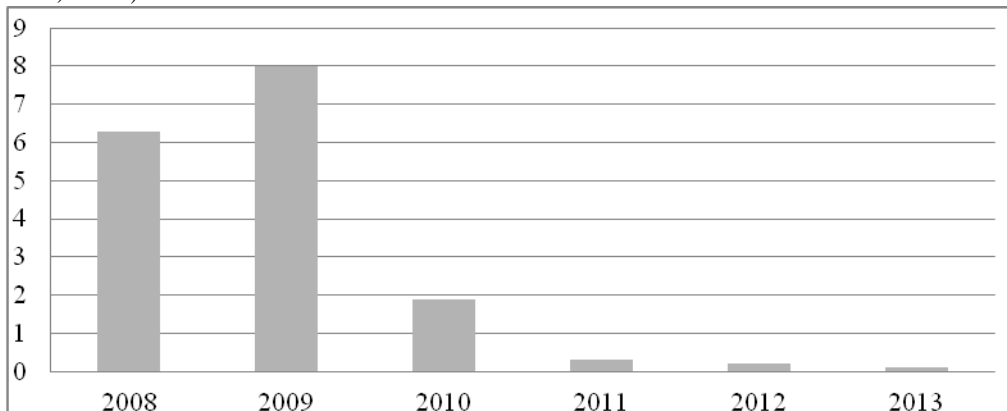
### **2.3 Transformation of savings and loans in Latvian banks**

Commercial banks and savings and loans (S & L) associations provide many services to customers, including deposits and credits. Both these institutions are quite similar in terms of the basic banking services they provide. They accept deposits from investors providing safekeeping of the money an interest payment. Both institution types use deposits to make loans, which are funds provided to investors for the promise of repayment of principal with interest. One of the primary sources of revenue for all banking institutions is the interest spread between the rate they collect on loans and the rate they pay on deposits (Csiszar, 2010).

Deposit rate is the interest rate that a bank pays the depositors for the use of their money. In Latvian banking institutions, it can be either fixed for a certain period, or it can be variable. In Latvia, it has decreased since 2009 and amounted to 0.13% in 2013, as shown in Fig. 4., according to the World Bank data on world development indicators.

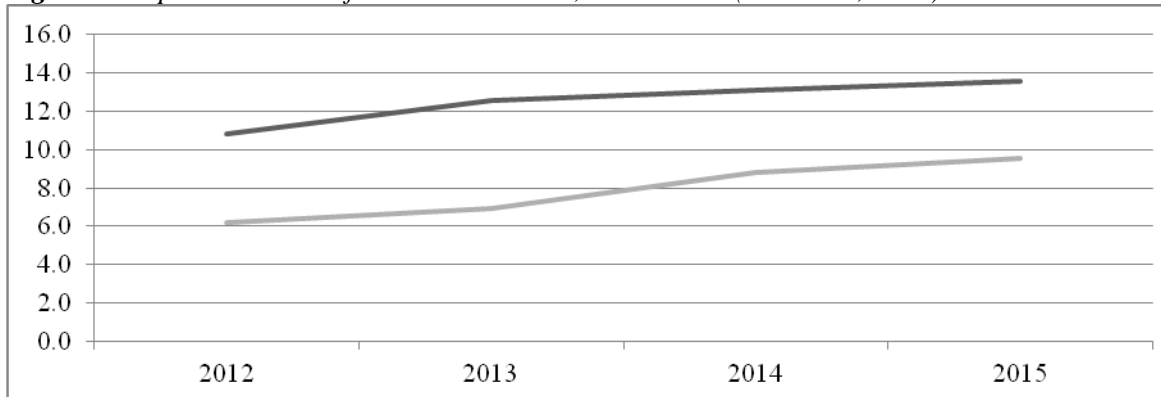
According to Trading Economics global macro models and analysts' data the interest rate in Latvia is expected to be 0.00 percent by the end of Q1/17. It will stand at 0.00 in 12 months' time. In the long-term, the interest rate in Latvia is projected to trend around 0.50 percent in 2020 (Trading Economics, 2017).

**Figure 4.** Interest rate of deposits in Latvia from 2008 till 2013, % (World Bank data, 2017)



*Source:* authors' calculations based on the World Bank collection of development indicators

**Figure 5.** Deposits in Latvia from 2012 till 2015, billion euro (LCA data, 2016)



*Source:* authors' calculations based on the LCA data

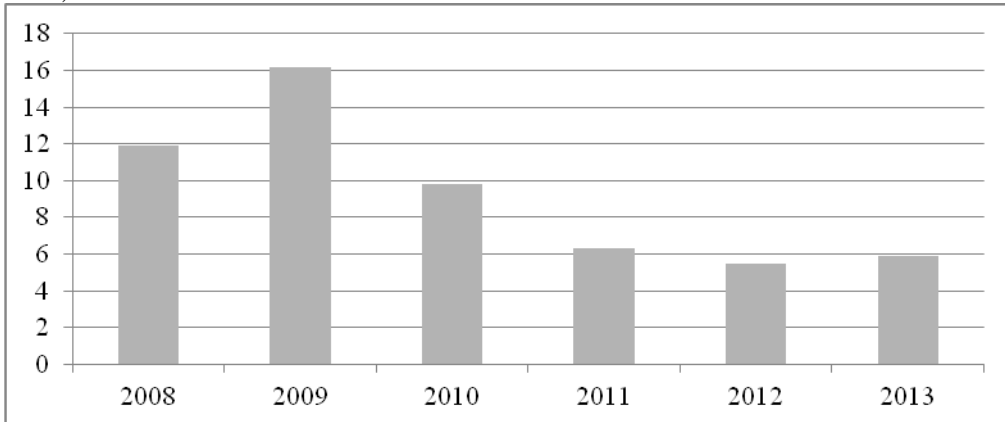
Despite the low deposit interest rate in Latvia, the number of the attracted deposits has grown in both sectors, as shown in Fig. 5. Latvian banks did not change the savings policy for last five years and continue to work like traditional banks. Interest rate of loans is decreased starting with 2010 and was reported at 5.92 %, as shown in Fig. 6., according to the World Bank data on world development indicators collected from officially recognized sources.

Bank lending rate in Latvia is expected to be 4.15 % by the end of Q1/17, according to Trading Economics global macro models and analysts' expectations. It will stand



at 4 % in 12 months' time. In the long-term, the Latvia Bank lending rate is projected to trend around 4.15 % percent in 2020 (Trading Economics, 2017).

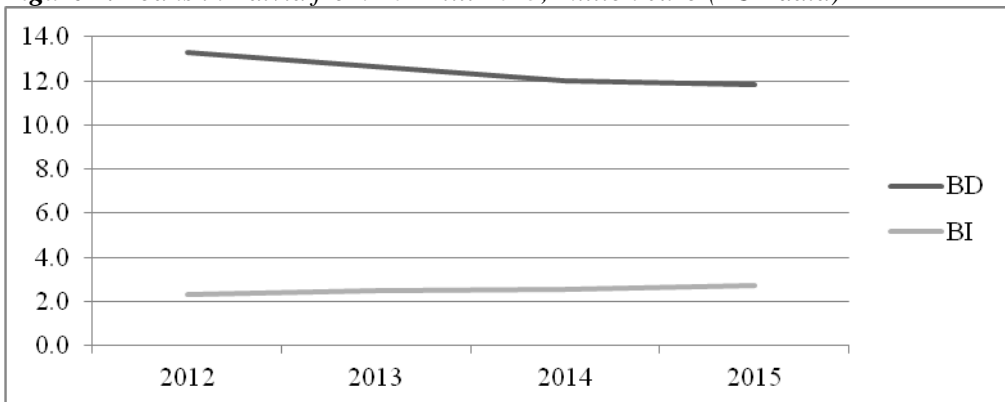
**Figure 6.** Interest rate of loans in Latvia from 2008 till 2013, % (Trading Economics, 2017)



*Source:* authors' calculations based on the World Bank collection of development indicators

The interest rate of loans is stabilized in Latvian banks. The loan receiving became less expensive, but the number of issued lending decreased in universal banking sector, as shown in Figure 7.

**Figure 7.** Loans in Latvia from 2012 till 2015, million euro (LCA data)



*Source:* authors' calculations based on the LCA data

The decrease of lending in BD is associated with bad credit history of many customers after the crisis in 2008, with the competition of the fast credit companies and government policy. Due to these effects, BD became flexible. At first, in 2016 BD started to offer the individual interest rate. Customers with high credit capacity may get reduced interest rate and customers with low credit capacity may get increased interest rate. Secondly, the credit issuing process in BD was facilitated and

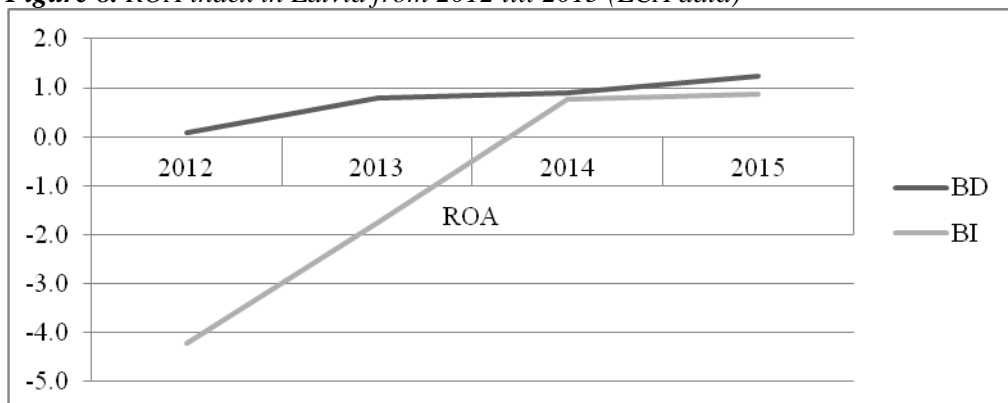
accelerated in 2016 by lowering the consideration of the credit assignment till 15 minutes. The customer also can apply for a loan using internet banking. Third, now Latvian banks faster adapt to changes in government policy and in 2016 started to issue the mortgage credit with nation guarantee.

### 3. Financial indexes in Latvian banks

Nowadays companies face the challenge of evaluating the potential loss of transactions, especially considering the recent financial crisis that showed what can happen as a result of poor risk management policy (Rupeika-Apoga & Nedovis, 2016). We identify three key dimensions on bank performance - profitability, efficiency and liquidity. Profitability and efficiency is measured by the return on assets (ROA), the return on equity (ROE) and the capital adequacy ratio (CAR).

ROA captures the aspect of performance of a bank in terms of its profitability, it is the ratio of net income to total assets. It is a ratio that is directly affected by internal factors of a bank (financial conditions), as well as external factors to a bank (economic conditions and government policies) (Saganga & Gwahula, 2016).

**Figure 8.** ROA index in Latvia from 2012 till 2015 (LCA data)



**Source:** authors' calculations based on the LCA data

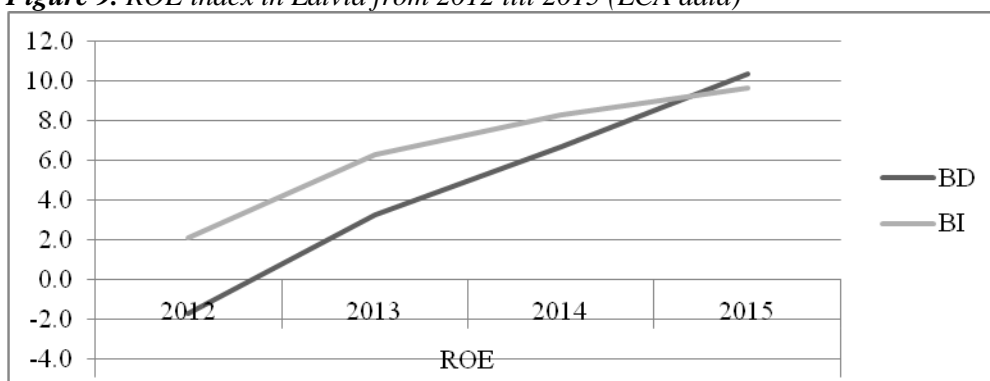
ROA index is higher at BD and it grows stably every year, as shown in Fig. 8. BI are more dependent from internal and external factors of a bank.

ROE measures the rate of return of ownership interest of common stock owners. It measures the efficiency of profit generation from every unit of equity ownership. It shows how effectively a company uses investment fund for profit growth (Saganga, Gwahula, 2016). ROE indicator is almost identical at both banking sectors, but the growth tendency decreases in BI faster, as shown in Figure 9.

CAR is the ratio which indicates the protection level of banks against excess leverage, insolvency and keeps them out of difficulty. The European prudential

regulation has encouraged banks to hold such safe and liquid securities that may help to cushion losses on riskier assets (Allegret *et al.*, 2016). It is defined as the ratio of banks capital in relation to its current liabilities and risk weighted assets. Risk weighted assets are a measure of the amount of banks assets, adjusted for risks. An appropriate level of capital adequacy ensures that the bank has sufficient capital to expand its business, while at the same time its net worth is enough to absorb any financial downturns without becoming insolvent (Nakhat, 2014).

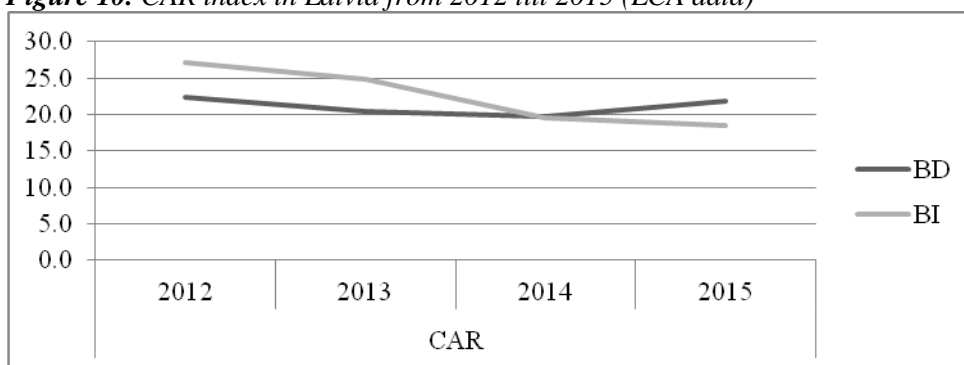
**Figure 9.** ROE index in Latvia from 2012 till 2015 (LCA data)



*Source:* authors' calculations based on the LCA data

The degree of protection of depositors' money is on the high level in both bank sectors, as shown in Figure 10.

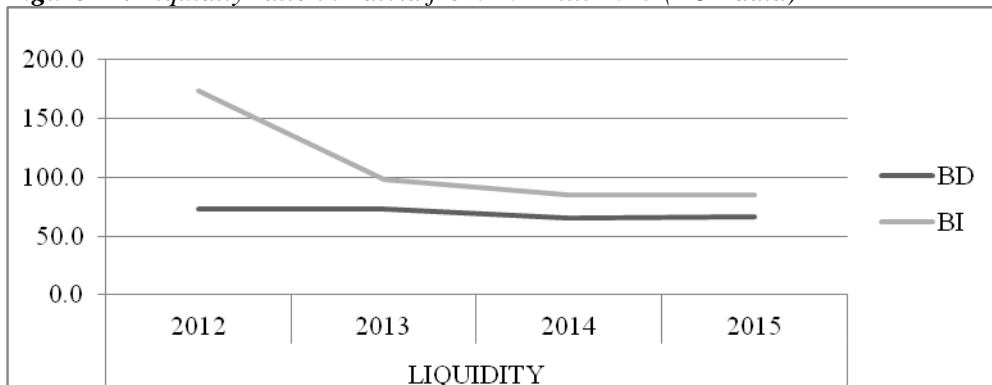
**Figure 10.** CAR index in Latvia from 2012 till 2015 (LCA data)



*Source:* authors' calculations based on the LCA data

A liquidity ratio is an indicator of whether a company's current assets will be sufficient to meet the company's obligations when they become due (Q&A, 2017).

BI ability to pay debt obligations and its margin of safety is higher, but it is within the Latvian norm 30 % in both banking sectors, as shown in Figure 11.

**Figure 11.** Liquidity ratio in Latvia from 2012 till 2015 (LCA data)

*Source:* authors' calculations based on the LCA data

#### 4. Conclusions, proposals, recommendations

The retail banking sector has had intensive changes during the last three to five years. Despite the crisis in the financial sector, the total income of banks in Latvia increased from 85.5 billion in 2008 till 415.9 in 2015 (LCA data, 2016). Latvian banking sector adapted to the new conditions with the help of new digital tools, of which the most powerful was the transition to the electronic payment system. With the FinTech development in the world, electronic payment instruments are growing and traditional payment instruments have decreased in Latvia.

Payment cards play an important role in today's marketplace as a ubiquitously accepted payment instrument. In 2014 the number of payment card transactions reached 246.6 billion. After two years the number of payment card transactions increased by 20% to 296.6 billion. The trend is to choose non-cash payments. BD are leaders in the number of issued cards and in 2015 kept 2.27 billion payment cards. It is 97.8% from the total amount of the issued cards in Latvia in 2015. The new digital tools like loyalty programs, payment cards modernization and protection systems' development help to increase the number of payment cards in Latvia. The number of POS terminals grew up for 46% from 2010 and dialed 35683 in 2015.

Traditional payment instruments, such as customer services centers and ATM, have lost the leader position in Latvia. In 2012 the amount of customer service centers in the BD sector was 377 and in the BI sector- 14. After four years the BI sector had 11 customer services centers. BD sector has had more changes and the number of customer service centers decreased by 26% to 278. Consequently, the BD sector actively changed the customer service model. The remaining customer service centers were modernized. The part of BD banks canceled to work with cash and offering to their customers only non-cash payments or advisory services. The customer service centers now are only the alternative channel for customers to conduct their banking. With FinTech development electronic payment systems and

instruments such as: online banking, mobile banking, call back, App and new communication line with customers (Skype, WhatsApp, Norvik Chat) have integrated in Latvian banks. The cash payoff services from ATM in Latvia provided only BD sector and the number of ATM decreased from 1359 in 2010 till 1015 in 2015.

The number of the attracted deposits has grown in both sectors every year from 17.7 billion in 2012 till 21.4 billion in 2015. Therefore, Latvian banks did not change the savings policy in spite the low interest rate. It has decreased from 8 % since 2009 and amounted to 0.13% in 2013.

On the contrary, after crises in 2008 the interest rate of loans is stabilized in Latvian banks and the loan receiving became less expensive. It decreased from 16.2% in 2009 till 5.9% in 2013. From 2012 the BI sector was stable and increased the amount of the issued loans from 2.3 million in 2012 till 2.7 million in 2015.

ROA, ROE, CAR index is higher at BD, because BI are more dependent from internal and external factors of a bank. BI liquidity is higher, but it is within the Latvian norm 30 % in both banking sectors. The gain of mentioned indicators in BI sector has a negative tendency to decrease from 2013 till 2015. BI should reconstruct the banking business model in Latvia.

In total FinTech development in the world affected the retail banking sector in Latvia. BD actively digitalizes. They became more flexible and have a focused policy to the new customers attracting and the deduction of existing customers by new digital tools. The BI sector in Latvia believes more in traditional banks' domination and change more slowly the banking business model.

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